72°22'30" 41°37'30' 41°3" 30" 280,000 250,000'-41°301 1 72°301 72°22'30" 670,000 SCALE 1:24,000

BEDROCK OUTCROPS AND AREAS OF THIN DRIFT, MOODUS QUADRANGLE, CONNECTICUT

1972

By Connecticut (Moodus quad.). geol. 1:24,000. 1972.

cop. 1.

Dennis W. O'Leary sheet 1, EXPLANATION

Bedrock outcrops Ledge exposed at ground surface

Areas of small closely spaced outcrops and areas where loose, unconsolidated material (overburden) is inferred to be

R, locations or areas where rottenstone is exposed

Note:

Bedrock outcrops are relatively abundant in the Moodus quadrangle, especially in steep, irregular hilly areas overlain by friable sandy till. Details on the composition and structure of the bedrock are found in Lundgren, Ashmead and Snyder (1971). Most bedrock is schist and gneiss.

less than 10 ft. thick

Outcrops vary widely in extent of weathering. Outcrops located in areas of outwash ordinarily consist of fresh, hard rock, commonly showing surfaces worn by glacial stream erosion. in places designated by the letter R, rottenstone is present. The largest area of rottenstone is located on the west-facine hill slope east of Dickinson Creek and north of Rte. 66, Here the rottenstone consists of soft, disaggregated biotite gneiss in a more crumbly matrix of the same lithology. The rottenstone is possibly 8 ft. or more thick, and is overlain by two to three feet of sand and gravel.

Almost all bedrock outcrops are mapped in areas where bedrock is inferred to be largely within 10 ft. of the ground surface. The abrupt, steep relief of most ledges and outcrops suggests that in these areas there are many "holes" where bedrock is probably considerably deeper than 10 feet. However, in these areas it is best to assume shallow bedrock cover unless detailed study proves otherwise. Typically, the nearness of bedrock is indicated by overburden containing abundant rotten rock fragments and loose mineral grains, especially mica, and clay stained yellow or orange by iron oxides from the underlying rock.

Reference:

Lundgren, Lawrence, Jr., Ashmead, Lawrence, and Snyder, George L. 1971. The bedrock geology of the Moodus and Colchester quadrangles, Connecticut: Connecticut Geology and Lat. History Survey Ouad. Rept. 27.



U.S. Geological Survey OPEN FILE MAP This map is preliminary and has not been edited or reviewed for conformity with Geological Survey standards or nomenclature.